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Notes on *Docosia* Winnertz (Diptera: Mycetophilidae), with description of six new species from Central Asia and the first generic record from the Afrotropical region

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Abstract

Six new species of *Docosia* Winnertz are described from Central Asia and their terminalia illustrated, viz. *Docosia bartaki* sp. nov. (Uzbekistan), *D. blagoderovi* sp. nov. (Uzbekistan), *D. chimganica* sp. nov. (Uzbekistan), *D. distributa* sp. nov. (Turkmenistan, Kazakhstan), *D. koyentagi* sp. nov. (Turkmenistan) and *D. turkmenica* sp. nov. (Turkmenistan). A new record of *D. selini* Kurina from Uzbekistan and a key to *Docosia* species in Central Asia are provided. The number of *Docosia* species in Central Asia now totals 10. *Docosia gilvipes* (Haliday in Walker) is newly found in South Africa representing the first record of the genus from the Afrotropical region.

Key words: Diptera, Sciaroidea, fungus gnats, Mycetophilidae, *Docosia*, Central Asia, Afrotropical region, new species, key

Introduction

The last decade has been considered as a renaissance in taxonomy (e.g. Padial *et al.* 2010) which is reflected in the study of fungus gnats (Diptera: Mycetophilidae). New genera and dozens of new species are described yearly (for a complete bibliography see <http://sciaroidea.info/bibliography>). One of the most studied genera among mycetophilids, attracting continued attention, is *Docosia* Winnertz, 1863. According to characters in wing venation, the genus is traditionally placed in the subfamily Leiinae (cf. Sjøli *et al.* 2000), which is, however, challenged by recent molecular studies (Rindal *et al.* 2009). As usual in mycetophilids generally, the majority of characters used for the identification of *Docosia* species is found in their complex male terminalia (cf. Laštovka & Ševčík 2006).

A total of 70 extant species have so far been described: 49 from the Palaearctic region, including 33 from Europe (e.g. Chandler *et al.* 2006, Laštovka & Ševčík 2006, Ševčík & Laštovka 2008, Kurina & Ševčík 2011), 17 from the Nearctic region (Bechev 2000, Taber 2011, 2012), three from the Neotropical region (Edwards 1933, Oliveira & Amorim 2011) and one from the Oriental region (Ševčík 2010). The Nearctic region is, however, apparently understudied because the unpublished revision by the late Dr. P. Laštovka (in litt.) indicates 31 Nearctic species. No species of *Docosia* has yet been reported from the Afrotropical and Australasian regions.

In addition, 11 fossil species of *Docosia* have been described, mainly from the Baltic amber (Evenhuis 1994) but also from the Early Cretaceous of Transbaikalia (Blagoderov 1998). However, considering the wing characters (the terminalia are not preserved), the Cretaceous species more likely belong to the complex of genera around *Palaeodocosia* Meunier, 1904 and *Dziedzickia* Johannsen, 1909, which are difficult to separate one from another (cf. Ševčík *et al.* 2011). Blagoderov & Grimaldi (2004) suggested that the Transbaikalian species may belong to their new genus *Neodocosia*.

The fauna of *Docosia* of Central Asia and the eastern Palaearctic is still poorly known. Four species of *Docosia* have been recorded from Central Asian countries so far (Zaitzev 1994, Kurina 2006). Six species of *Docosia* are